

KHOLEVICH, IA, dotsent; MATEV, Iv.; BOZHKO, Vl.

On surgical therapy of burns. Khirurgia 15 no.9/10:803-807  
'62.

1. Iz Nauchno-issledovatel'skiih institut po vuzstanovitel'na  
khirurgii, protezirani i rekhabilitatsii.  
(BURNS) (SKIN TRANSPLANTATION)

MATEV, Iv. starshiy nauchnyy sotrudnik

Permanent flexions of the hand and fingers following burns;  
experience from 200 operations. Ortop., travm.i protez. 23  
no.11;21-26 N '62. (MIRA 16:4)

1. In Instituta vosstanovitel'noy khirurgii, protezirovaniya i  
trudoustroystva, Sofiya. Adres avtora: Bolgariya, Sofiya, ul.  
"Urvich", d.13, Institut vosstanovitel'noy khirurgii.

(BURNS AND SCALDS)  
(HAND WOUNDS AND INJURIES)  
(CONTRACTURE)

MATEV, Iv., starshiy nauchnyy sotrudnik

Functional results of a suture of hand and finger nerves. Ortop.,  
travn. i protez. 25 no.11:18-24 N '64. (MIRA 18:11)

1. Iz Instituta vosstanovitel'noy khirurgii, protezirovaniya i  
trudoustroystva, Sofiya. Adres avtora: Sofiya, Bolgariya, ulitsa  
Urvich, d.13, Institut vosstanovitel'noy khirurgii. Submitted  
May 22, 1963.

MATEV, I.

Surgical treatment of long-standing Valnstein disease  
ture of the fingers. Acta chir. plast. (Praha) 7 no.1 46-1  
'65

1. Institute of Reconstructive Surgery, Prosthetics and  
habilitation, Sofia, Bulgaria (Director: Dr. Ivan Matev).

IONKOV, I.; TSOLOV, R.; STANCHEV, A.; DOSKOV, I.; SHISHMANOVA, IU.;  
BALCHEV, A.; PENEVA, M.; SUKIASIAN, Kh.; MATEV, M.; NIKOLOV, St.;  
ATANASOV, E.; TODOROV, B.; STEFANOVA, A.

Clinical, pathophysiologic, and therapeutic aspects of tuberculous  
exudative pleurisy. Nauch. tr. Med. akad. Chervenkov, Sofia 1 no.1:  
117-137 1953.

1. Predstavena ot prof. Iv.Ionkov, zavezhdashch Katedrata po  
propedevtika na vutreshnite bolesti.

(TUBERCULOSIS, PULMONARY, complications,  
pleurisy, exudative)

MATEV, M.

PENEVA, M.; MATEV, M.

Gastric secretion in tuberculous exudative pleurisy. Sovrem. med.,  
Sofia 5 no.1:5-20 1954.

1. Iz Propedevtichnata vutreshna klinika pri Meditsinskata akademija  
"V.Chervenkov", Sofia (direktor: prof. Iv. Ionkov)  
(GASTRIC JUICE,  
\*secretion, in tuberc. exudative pleurisy)  
(TUBERCULOSIS, PULMONARY, physiology,  
\*gastric juice secretion in tuberc. exudative pleurisy)

**MATEV, M.**

Case of diencephalic obesity. *Suvrem. med.*, Sofia 5 no.3:113-114  
1954.

1. Iz Propedevtichnata vutreshna klinika pri Meditsinskata akademija  
Vulko Chervenkov, Sofia (direktor: prof. Iv.Ionkov)  
(OBESITY, etiology and pathogenesis,  
diencephalic disord.)  
(DIENTEPHALON, diseases,  
causing obesity)

ATANASOV, E.; NIKOLOV, St.; MATEV, M.; ORESHKOV, V.

Certain autonomic changes in rheumatism. Suvrem.med., Sofia  
6 no.10:3-12 1955.

1. Iz Katedrata po propedeutika na vutreshnite bolesti pri  
Visshia meditsinski institut Bulko Chervenkov, Sofia  
(direktor: prof. Iv.Ionkov)  
(RHEUMATISM, physiology.  
autonomic NS (Bul))  
(AUTONOMIC NERVOUS SYSTEM, in various diseases,  
rheum. (Bul))



MATEV, M., st. asistent; IONKOV, Iv., prof.

Case of Meigs-Milroy trophedema. Suvrem. med., Sofia 8 no.4:78-80  
1957.

1. Iz Katedrata po propedeutika na vutreshnite bolesti pri VMI - Sofia  
(Zav. katedrata: prof. Iv. Ionkov).  
(LYMPHEDEMA, case reports,  
Milroy's dis. (Bul))

MATEV, M - st. asistent

Simultaneous development of pulmonary cancer and tuberculosis. Suvrem. med.  
Sofia 8 no.4:81-84 1957.

1. Iz Katedrata po propedevtika na vutreshnite bolesti pri VMI (Zav.  
katedrata: prof. Iv. Ionkov).

(TUBERCULOSIS, PULMONARY, complications,  
cancer (Bul))

(LUNG NEOPLASMS, complications,  
tuberc. (Bul))

IONIOV, I.; TSOLOV, R.; MATEV, M.

Cholecystitis at the Internal Propedeutic Clinic in Sofia. Suvrem. med.,  
Sofia 8 no.6:65-66 1957.

1. Iz Propedevtichnata vutreshna klinika pri VMI; Sofia.  
(CHOLECYSTITIS, statistics,  
hosp. statist. (Bul))

IONKOV, I.; TSOLOV, R.; MATEV, M.

Cholelithiasis at the Internal Propedeutic Clinic in Sofia. Suvrem. med.,  
Sofia 8 no.6:67-69 1957.

1. Iz Propedevtichnata vutreshna klinika na VMI; Sofia (Direktor:  
prof. I. Ionkov).

(CHOLELITHIASIS, statistics,  
hosp. statist. (Bul))

TSOLOV, R.; MATEV, M.; PENEVA, M.

Result of investigation of gastric and duodenal ulcer in Bulgaria. Suvrem.  
med., Sofia 8 no.6:70-71 1957.

1. Iz Propedevtichnata vutreshna klinika pri VMI; Sofia (Direktor: prof.  
I. Ionkov).

(PEPTIC ULCER, statistics,  
in Bulgaria (Bul))

TSOLOV, R.; MATEV, M.; PENEVA, M.

Certain data on cholelithiasis in Bulgaria. Suvrem. med., Sofia  
8 no.6:71-72 1957.

1. Iz Propedevtichnata vutreshna klinika pri VMI; Sofia.  
(CHOLELITHIASIS, statistics,  
in Bulgaria (Bul))

TSOLOV, R.; MATEV, M.; PENEVA, M.

Certain data on cholecystitis in Bulgaria. Suvrem. med., Sofia 8 no.6:  
72-73 1957.

1. Iz Propedevtichnata vutreshna klinika pri VMI; Sofia.  
(CHOLECYSTITIS, statistics,  
in Bulgaria (Bul))

TSOLOV, P.; MATEV, M.

A case of mitral infantilism. Suvrem. med., Sofia 8 no.8:106-108 1957.

1. Iz Katedrata po propedevtika na vutreshnite bolesti pri VMI - Sofia  
Zav. kadetrata: prof. Ionkov.

(MITRAL STENOSIS, compl.

cardiac decompensation & infantilism in 16-year-old girl)

(CONGESTIVE HEART FAILURE, compl.

mitral stenosis & infantilism in 16-year-old girl)

(INFANTILISM, etiol. and pathogen.

mitral stenosis & cardiac decompensation in 16-year-old girl)



IONKOV, Iv., Prof.; MATEV, M.; TOMKOV, As.; GRIGOROVA, M.

Use of antistreptolysin test & of Waaler-Rose-Heller hemagglutination test in rheumatism and other joint diseases. Suvrem. med., Sofia 8 no.12: 38-44 1957.

1. Iz Propedevtichnata vutreshna klinika pri VMI--Sofia (Direktor: prof. Iv. Ionkov). i Nauchnoizsledovateliskiia institut po epidemiologia i mikrobiologia (Direktor: Vl. Kalaidzhiev).

(STREPTOLYSIN, antagonists

antistreptolysin test in diag. of rheum. & joint dis. (Bul))

(HEMAGGLUTINATION,

Waaler-Rose-Heller test in diag. of rheum. & joint dis. (Bul))

(RHEUMATISM, diag.

antistreptolysin & Waaler-Rose-Heller hemagglutination tests (Bul))

(JOINTS, dis.

antistreptolysin & Waaler-Rose-Heller hemagglutination tests (Bul))

MATEV, M. ~~XXXXXXXXXX~~

TECHNOLOGY

Periodical STROITELSTVO. Vol. 5, no. 8, 1958.

MATEV, M.; NOVAOV, D. Using a group of dredging machines for road construction. p. 23.

Monthly List of East European Accessions (E-AL) LC, Vol. 8, no. 3, March, 1959. Unci.

COUNTRY : USSR  
 CATEGORY :  
 ABS. JOUR. : ZhBiol., No. 3 1959, No. 10191  
 AUTHOR : Yankov, Iv., Matev, M., Toshkov, As., Grigorova, M.  
 INST. : ---  
 TITLE : The Use of Antistreptolysin and Hemagglutination  
 Reactions in Rheumatic Fever and Other Diseases of  
 the Joints  
 ORIG. PUB. : Klinich. meditsina 1958, 36, No 5, 88-93  
 ABSTRACT : Investigations were made of the antistreptolysin (A) and  
 hemagglutination reaction (HR) of the sera of 28  
 patients with articular rheumatic fever, 29 with chronic  
 rheumatic fever, 12 with infectious arthritis, 2 with  
 Echterew's disease and 8 with spondylarthrosis  
 deformans. In the majority of patients with acute  
 articular rheumatic fever the concentration of A was  
 increased, but the HR was negative. In the patients  
 with chronic rheumatic fever the HR was always  
 positive in titers of 64-2048, and the reaction for A  
 Card: 1/3

COUNTRY :

DATE :

REF. NO. : 220211, 14. 1958, No. 10191

ABSTRACT :

INSE. :

TYPE :

ORIG. PUB. :

ABSTRACT :

was negative in more than half of the patients. In patients with infectious arthritis a high titer of A was found; the HR was positive in one-half of these patients. In Bechterew's disease and spondylarthritis both reactions were negative, as they were also in various internal diseases. The concentration of A was increased in patients with sore throat and scarlet fever. A positive HR in the pleuritides is evidence, in the authors' opinion, of their rheumatic origin, and

Cards:

2/3

49

COUNTRY :  
CATEGORY :

ABG. JOUR. : RZhBodl., No. 1959, No. 10191

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : when it is positive in other disea. it is evidence  
that the person has had rheumatic polyarthritis in  
the past.

Card:

3/3

MATEV, M.

A case of cholesterol pericarditis. Suvrem.med., Sofia No.9/10:  
188-190 '59.

1. Iz Katedrata po propedeutikha na vutreshnite bolesi pri VMI -  
Sofia. Zav.katedrata: prof. Iv. Ionkov.  
(TUBERCULOSIS CARDIOVASCULAR case reports)  
(CHOLESTEROL metab.)

IONKOV, Iv.; STANCHEV, Al.; DOSKOV, Iv.; SHISHMANOVA, Iul.; ATANASOV, E.;  
MATEV, M.; PANEVA, M.; NIKOLOV, St.; PETRUNOV, St.; NIKOLOV, N.

The development of Bulgarian internal medicine from 9 September  
1944. Suvrem med., Sofia no.6:106-114 '60.  
(HISTORY OF MEDICINE)

*Matev, M.*

3

TOSHKOV, As.  
SURNAME (in caps); Given Names  
Country: Bulgaria  
Academic Degrees: MD  
Affiliation: Co-Editor of Khirurgia, Editing Director: Dr L. STOYANOV  
Source: Sofia, Khirurgia, No 1, Jan/Feb 61, pp 33-35  
Data: "Serologic Tests for The Detection of the Rheumatoid Factor."  
Co-authors:  
MATEV, M., Sofia  
AVRAMOVA, Sv., Sofia



MATEV, M.; TOSHKOV, As.; STOIANOVA, M.

On the diagnosis of rheumatic and subacute septic endocarditis.  
Suvrem med., Sofia no.3:49-58 '61.

1. Katedra po pripedevtika na vutreshnit bolesti, Vissh meditsinski  
institut, Sofiya. (Rukovoditel na katedrata prof. Iv. Ionkov.) i  
Nauchno-izsledovatel'ski institut po epidemiologiya i mikrobiologiya.  
(Direktor: Vl. Kalaidzhiev.)

(RHEUMATIC HEART DISEASE diag)  
(ENDOCARDITIS SUBACUTE BACTERIAL diag)

IONKOV, Iv.; TSOLOV, R.; DOSKOV, I.; SHISHMANOVA, Iul.; ANDREEV, I.;  
 NIKOLOV, St.; SUKIASIAN, Kh.; MATEV, M.; ATANASOV, E.;  
 TODOROV, B.; STEFANOVA, A.; PETRUNOV, St.; TSVETKOV, D.;  
 ORESHKOV, V.; SIMONOV, S.; PATARINSKI, D.; AVRAMOVA, N.;  
 MALCHEV, Kh.

Biochemical changes in patients with influenza during the  
 1959 epidemic. Nauch. tr. vissh. med. inst. Sofia 41 no.7:  
 9-14 '62.

1. Predstavena ot prof. I. Ionkov.  
     (INFLUENZA) (GAMMA GLOBULIN) (IRON METABOLISM)  
     (BILIRUBIN) (BICARBONATES) (BLOOD CHOLESTEROL)  
     (UREA) (BLOOD SUGAR) (PROTEIN METABOLISM)  
     (POTASSIUM) (BLOOD PROTEINS) (SODIUM)  
     (17-KETOSTEROIDS) (SODIUM CHLORIDE)

BULGARIA

M. MATEV and As. TOSHIKOV, Chair of Propedeutic Internal Medicine  
(Katedra po propedevtika na vutreshnite bolesti) Head (rukovoditel)  
Prof Iv. IONKOV, Medical College, Sofia; and Microbiology Institute  
of the Bulgarian Academy of Sciences (Institut po mikrobiologiya pri  
BAN) Director Academician Ig. EMANUILOV, [Sofia.]

"Properdin, Antistreptolysin, Leukocytes and Erythrocyte Sedimentation  
Rate in Rheumatic Fever and Infectious Polyarthritis."

Sofia, Suvremenna Meditsina, Vol 14, No 2, 1963; pp 36-39.

Abstract [English summary modified]: In 58 patients with rheumatism and  
28 with infectious nonspecific polyarthritis, serum properdin levels  
were correlated with antistreptolysin titers, leukocytosis, ESR and  
clinical data. The resulting figures indicate that an increase in  
properdin levels is a favorable prognostic sign. Two tables; 5 Soviet  
and 3 Western references.

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BULGARIA

R. TSOLOV and M. MATEV, Department of Propedeutics in Internal Medicine of Medical College (Katedra po propedevtika na vutreshnite bolesti pri VMI) Head (rukovoditel na katedrata) Prof Iv. IONKOV, Sofia.

"Use of Some Antibiotics in Bronchiectasis and Pulmonary Abscess."

Sofia, Suvremenna Meditsina, Vol 14, No 5, 1963; pp 27-29.

Abstract: Data on 327 patients with bronchiectasis and 32 with pulmonary abscesses, 1950-1961; treatment with penicillin and streptomycin; 12 of the bronchiectatic patients succumbed. Eleven had urticarial side effects; 269 were discharged well and 52 improved.

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KHALACHEV, V. D-r.; VASILEV, V. D-r.; MATEV, S. D-r.; KOEN, E. D-r.

Trachoma in the Plovdiv region according to data from ophthalmological clinics observed from 1949-1952. Izv. Mikrob. inst., Sofia no.8:569-586 1957.

1. Ochna klinika (vr. zav.: prof. T. Zaprianov) pri visshia meditsinski institut I. P. Pavlov v Plovdiv.  
(TRACHOMA, epidemiol.  
in Bulgaria (Bul))

M

Country : BULGARIA  
Category: Cultivated Plants Commercial. Oil-Bearing.  
Sugar-Bearing.

Abs Jour: RZhDiol., No 11, 1958, No 49062

Author : Matev, Todor.  
Inst : Agricultural Research Inst.  
Title : An Investigation of Some Methods of Sowing and Cultivating Sugar Beets With Irrigation.

Orig Pub: Nauchni tr. M-vo zemled. i gorite. Ser. ikon., nekhan. i melior., 1957, 2, No 2, 43-48.

Abstract: Experiments conducted in the years 1953-1955 by the Agricultural Research Institute near the city of Plovdiva (Bulgaria) have shown that the highest harvests of roots (568 cwt/ha.) were obtained with

Card : 1/2

M-135

size. Strip planting provides the highest sugar beet root yields. -- A. M. Smirnov

Card : 2/2

BULGARIA / Cultivated Plants. Fodder Grasses and Edible M  
Roots.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24925

Author : Matev, T.

Inst : Not given

Title : Irrigation of Fodder Cultures

Orig Pub : Kooperat. zemedeliye, 1957, No 12, 24-25

Abstract : No abstract given

Card 1/1

MATEV, T.

"Watering Sugar Beets."

p. 12 (Kooperativno Zemedelie, No. 6, June 1958, Sofia, Bulgaria)

Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 11,  
Nov. 1958



Country : BULGARIA  
Category : Cultivated Plants. Potatoes. Vegetables. Melons. M

Abs Jour : RZhBiol., No 6, 1959, No 24880

Author : Matev, T.; Dimitrov, G.; Surlekov, P.

Inst : -

Title : Irrigation of Vegetable Cultures.

Orig Pub : Ovoshcharstvo i gradinarstvo, 1958, No. 6,  
33-39

Abstract : No abstract.

Card : 1/1

MATEV, Tsvetan, inzh.; VASILEV, Vasil, inzh.

Economic effect of long-ditch irrigation of chernozem-smonitza soils.  
Selskostop nauka 1 no.4/5:421-438 '62.

VASILEV, Vasil, inzh.; MATEV, Tsvetan, inzh.

Use of water at the Georgi Dimitrov Hydropower and Irrigation Network.  
Khidrotekh i melior 7 no.7:193-196 '62.

MATEV, Tsvetan

Size and form of crop rotation plots with a view to the most economical density of the road network in irrigated regions. Selskostop nauka 1 no.7/8:727-738 '62.

1. Khidromeliorativna optina stantsiia v Stara Zagora.

KRIVOVIAZ, S. M.; MATEV, Tsvetan

Determination of the furrow irrigation technique.  
Selskostop nauka 2 no. 3/4 316-324 '63.

MATEV, Tsvetan; VASILEV, Vasil

Fall and winter evaporation of the soil, and the need for watering during that period. Selskostop nauka 2 no.5/6: 515-524 '63.

MATEV, Tsvetan, inzh.

Some peculiarities in furrow irrigation. Khidrotekhnika i melioratsiya  
8 no.6:167-169,172 '63.

M.ILV, Tsvetan

The most profitable distance between group canals. Reiskostop  
nauka 2 no.9:1048-1048 '64.



MATEV, Tsvetan, Izh.

A winning performance in the 1954-55 season. Kridotnik 1 series 0  
no. 2:54-55 164.

MATEV, Tsvetan, inzh.: V'ICHANOV, Dimitur, agr.

Watering and irrigation norms for sunflowers and beans as secondary  
crops. Khidrotekh i melior 9 no. 4:114-118 '64.

MATEVA, M.

Animals, source and carriers of infectious diseases. Priroda  
Bulg 11 no.5:64-68 S-0 '62.

1. Nauchnoizsledovatel'ski institut po epidemiologiya i  
mikrobiologiya.

MATEVA, M.

New rodenticides. Priroda Bulg 12 no.3:100-103 My-Je '63.

1. Nauchnoizsledovatel'ski institut po epidemiologii i mikrobiologii.

MATEVA, N.

Pinnipedia. Prir i znanie 16 no.3:13-16 Mr'63.

MATEVA, Mariia

Migrations of some vertebrates and invertebrates. Prir i znanie  
15 no.5:12-16 My '62.

MATEVA, Mariia

Role of rodents in spreading infectious diseases. Priro  
znanie 17 no.9:6-8 N '64.

RUBIN, Phileto, d-m.; M. T. V. V.

Serial cultivation of the Rajesky virus in the chick embryo  
trypsin tissue cultures. *Rev Vet Inst virus* 10:25-30 1960

A tissue-culture method for the titration of the hyperimmune  
serums against the Rajesky disease. *Ibid.* 11:131-132

Interference between the viruses of the Newcastle and  
foot-and-mouth diseases in the tissue cultures. *Ibid.* 11:157-158



MATEVA, V.; VASILEVA, L.

Amylase activity of pancreatic extracts from the healthy swine  
and the swine infected with the swine plague virus. Izv Vet  
inst virus 2:75-79 '63

**BULGARIA**

**MATEVA, Dr. V.,** Veterinary Institute of Infectious and Parasitic Diseases, Sofia; **MILANOV, Dr. M.,** and **CHILEV, Dr. D.,** ODVS, Burgas

**"New Methods for the Diagnosis of Hog Cholera"**

Sofia, Veterinarna Sbirka, Vol 63, No 2, 1966, pp 9-10

**Abstract:** Hog cholera has been eradicated in Bulgaria: there has not been a single case in 1964. However, the danger that the infection may be carried in from abroad still exists. In view of the occurrence of African hog cholera in some European countries, it is also necessary to have methods whereby classical hog cholera can be identified and differentiated from the African form in case an outbreak occurs. A method for diagnosing classical hog cholera has been developed which involves biological tests by infection of young pigs treated

1/2

MATEVITSKIY, B.S., inzh.

Automatic control of switches. Bezop.truda v prom. 4 no.10:19-  
21 0 '60. (MIRA 13:11)

1. Svyaz'shermet, g.Krivoy Rog.  
(Krivoi Rog Basin--Mine railroads--Equipment and supplies)

MATEVOSOV, R.D.

Introducing synthetic products instead of food produce.  
Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekhn.  
inform. 17 no. 5:20-22 My '64. (MIRA 17:6)

VERMISHEV, K.; MATEVOSOV, Yu.

Outlook for the development of the glass industry in Armenia.  
Prom. Arm. 4 no.7:13-17 J1 '61. (MIRA 14:7)

1. Institut ekonomiki AN Armyanskoy SSR.  
(Armenia---Glass manufacture)

MATEVOSYAN, A. A.

Agriculture

Sainfoins of Armenia. Erevan, Izd. AN Arm. SSR, 1951.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

MATEVOSYAN, A.A.

Corn in the Armenian S.S.R. [in Armenian with summary in Russian].  
Izv. AN Arm. SSR. Biol. i sel'khoz. nauki 8 no. 2:3-8 F '55. (MIRA 9:8)  
(Armenia--Corn (Maize))

USSR / Cultivated Plants. Fodder Crops.

M-5

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58637

Author : Matevosyan

Inst : Not given

Title : Some Problems Concerning the Increase of the Yielding  
Capacity of Perennial Grasses in the Armenian SSR

Orig Pub : Aystani koltitesakan, 1957, 4, 32-33

Abstract : The problem of raising the yielding capacity of  
perennial grasses was studied during sowing in kolkhozes  
of the village Fontan, Akhtinskiy rayon and of the  
village Bambakashat, Oktembryanskiy rayon, Armenian  
SSR. The low germination of seeds of perennial grasses,  
usually ~ 50% and in some cases as low as 25 - 30%,  
was noticed. Good results were obtained by air heating  
of seeds. Dense sowing produced better results. The

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USSR / Cultivated Plants. Fodder Crops.

M-5

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58637

best norms are: 20 - 25 kg of seeds of alfalfa and  
150 - 160 kg of esparsette per 1 ha. -- S. M. Marukyan

Card 2/2

COUNTRY : USSR

CONTROL : Soviet Control

N

DATE : 1971, Vol. 1, No. 1, p. 1

AUTHOR : Petrov, B. A., and G. M. G.

EDITOR :

TITLE : The Influence of Alcohol on the Behavior in the Field of  
Life and Health.

ABSTRACT : 1. The influence of alcohol on the behavior in the field of

2. The influence of alcohol on the behavior in the field of

Page: 1/1

PARONIKYAN, V.O.; MATEVOSYAN, A. Sh.

Native arsenic from the Amasiysk deposit in the Armenian  
S.S.R. Dokl. AN Arm. SSR 41 no. 4:240-243 '65 (MIRA 19:1)

1. Institut geologicheskikh nauk AN Armyanskoy SSR.

MATEVOSYAN, Ye.

S/058/61/000/010/024/100  
A001/A101

AUTHORS: Dolgoshein, B.A., Luchkov, B.I., Ushakov, V.I., Asatiani, T.L.,  
Krishchan, V., Matevosyan, Ye., Sharatunyan, R.

TITLE: On polarization of  $\mu$ -mesons of cosmic radiation

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 97-98, abstract 10B516  
("Tr. Mezhdunar. konferentsii po kosmich. lucham, 1959, v. 1", Mos-  
cow, AN SSSR, 1960, 319 - 321)

TEXT: Polarization of  $\mu$ -mesons was determined from asymmetry of angular  
distribution of positrons at stops and decays of  $\mu$ -mesons in copper. The  $\mu$ -  
mesons with momenta of 0.35, 1.05, 1.5, and 2.0 Bev/c were measured. The res-  
pective values of polarization are as follows:  $0.21 \pm 0.08$ ,  $0.35 \pm 0.08$ ,  $0.52 \pm$   
 $\pm 0.08$  and  $0.50 \pm 0.09$ . The relation obtained between the polarization degree of  
 $\mu$ -mesons and their momenta is briefly discussed.

L. Dorman

[Abstracter's note: Complete translation]

Card 1/1

MATEVESYAN, YE. M., SHAKHATUNYAN, R. O., USHAKOV, V. I., ASATIAN, T. L.,  
BETEZINSKIY, L. S., DOLGOSHEYIN, B. A., LUCHKOV, B. I., KRISHCHYAN, V. M.,  
Alikhanyan, A. I., Asatani, T. L.

"Polarization of Cosmic Ray Nuons."

report submitted for the Intl. Conf. on Cosmic Rays and Earth Storm (IUPAP)  
Kyoto, Japan 4-15 Sept. 1961.

S/048/62/026/006/003/020  
B125/B112

AUTHORS: Alikhanyan, A. I., Asatiani, T. L., Krishchyan, V. M.,  
Matevosyan, E. M., Sharakhaturyan, R. O.

TITLE: Cosmic muon polarization

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26,  
no. 6, 1962, 713 - 715

TEXT: The results hitherto obtained by the authors and G. W. Clark (see reference) cannot be regarded as definite since data on polarization are inadequate and no check measurements with depolarizing material have been made. More reliable results were obtained at momenta of  $\sim 2.1$  Bev/c with the aid of two identical improved apparatus (Fig. 2). Constant hodoscopic counters were attached to the counter series I, II, III for determining the muon direction. The anti-coincidence pulse I + III - IV separates the muon stopping events in the copper absorber and produces a high voltage pulse. This pulse is transmitted to the counters 1 to 10 which fix the decay electrons 1.2 to  $4.7 \mu$  sec after the stopping. The constant hodoscope and the pulse hodoscope were recorded with an  $\Phi$ P-2 (FR-2) photo-

Card 1/02

Cosmic muon polarization

S/048/62/026/006/003/020  
B125/B112

recorder. Each decay event was evaluated with a special stencil. A possible asymmetry of the apparatus was eliminated by a magnetic field of 80 gauss automatically switched on and off at intervals of 30 min.  $P = R_0/R_{80} = 1.20 \pm 0.03$  holds for the polarization P. The present experimental data do not indicate any significant amount of muon impurities produced in  $K_{\mu 2}$ -meson decay. There are 2 figures and 1 table. The most important English-language reference is: G. W. Clark, J. Hersil, Phys. Rev., 108, 1538 (1957).

ASSOCIATION: Fizicheskii institut Akademii nauk ArmSSR (Physics Institute of the Academy of Sciences ArSSR)

Card 2/2

34003

S/056/62/042/001/020/048

B104/B102

24.6700

AUTHORS: Alikhanyan, A. I., Asatiani, T. L., Matevosyan, E. M.,  
Sharkhatunyan, R. O.

TITLE: Study of the polarization of cosmic-ray  $\mu^+$ -mesons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki v. 42,  
no. 1, 1962, 127-129

TEXT: The counter arrangement shown in Fig. 1 was used to determine the polarization of underground cosmic-ray  $\mu^+$ -mesons from the asymmetry in the angular distribution of positrons emitted in  $\mu^+$  decay. The resolution of

the coincidence circuit was  $5 \cdot 10^{-7}$  sec. The asymmetry of the device was determined with a solenoid S around a copper absorber M, which generated a depolarizing magnetic field of 80 oe inside the absorber. The magnetic field was automatically switched on and off every 30 minutes. Number of recorded events without magnetic field:  $N_0 = 16,290$ ; number of recorded events with magnetic field:  $N_H = 14,920$ ; ratio between positrons escaping upward and such escaping downward (without magnetic field):

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34003

S/056/62/042,00\* 020,025

B104/B102

Study of the polarization of...

$R_0 = 1.35 \pm 0.07$ ; the relevant ratio with magnetic field:

$R_H = 1.12 \pm 0.018$ ;  $R_0/R_H = 1.20 \pm 0.03$  Polarization when allowing for

the angular distribution of muons and for their depolarization on entering into the copper absorber:  $P = 0.25 \pm 0.03$ . Calculations made in accordance with I. I. Gol'dman (ZhETF, 34, 1017, 1958) yielded an index of the pion production spectrum of  $\gamma = 1.87 \pm 0.37$  for the polarization obtained. The polarization was calculated from  $P = K(R-1)/(R+1)$ . To obtain correct values, the geometry factor K of the experimental setup was computed at the Vychislitel'nyy tsentr AN Armyanskoy SSR (Computer Center of the AS Armyanskaya SSR). It can be determined, however, with sufficient accuracy in an accelerator experiment. B. I. Luchkov, B. A. Dolgoshein, I. I. Gol'dman, and S. A. Kheyfets are thanked for interest and advice, A. V. Karakhanyan and Zh. Ye. Nazaryan for help in measurements, L. G. Akhverdova for assistance, the team of the Computer Center of the AS Armyanskaya SSR, headed by T. M. Ter-Mikayelyan, for computations, and A. G. Tigranyan for help in the experiments. There are 2 figures and 10 references: 6 Soviet and 4 non-Soviet. The three references to English-language publications read as follows:

Card 2/4<sub>3</sub>

34003

S/056/62/042/001/020/048  
B104/B102

Study of the polarization of...

S. Hayakawa. Phys. Rev., 108, 1533, 1957; G. W. Clark, J. Hersil. Phys. Rev., 108, 1538, 1957; H. V. Bradt, G. W. Clark. Bull. Am. Phys. Soc., 6, 263, 1961.

ASSOCIATION: Fizich. skiy institut Akademii nauk Armyanskoy SSR (Physics Institute of the Academy of Sciences Armyanskaya SSR)

SUBMITTED: August 29, 1961

Fig. 1. Experimental arrangement.

Legend: (IV) copper counter, 2 cm in diameter, 45 cm long; the other counters are of the type MC-9 (MS-9), 3 cm in diameter and 28 cm long; series I and III are connected in coincidence, series IV in anti-coincidence; (M) copper absorber; (S) solenoid.

Card 3/4<sub>3</sub>

S/056/63/044/002/063/065  
B185/B102

AUTHORS: Alikhanyan, A. I., Asatiani, T. L., Matevosyan, E. M.

TITLE: A two-electrode spark discharge chamber with large gap in  
a magnetic field

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,  
no. 2, 1963, 773-775

TEXT: The authors studied the possibilities of applying large spark discharge chambers to the recording of charged-particle trajectories. The measurements, of which earlier results are given here, were made with the chamber of the cosmic-ray mountain station Nor-Amberd of the Institut, fiziki GKAE (Physics Institute GKAE). The chamber volume is  $40 \cdot 40 \cdot 21 \text{ cm}^3$  and the electrodes of duraluminum are 20 mm thick. The chamber was evacuated to  $3 \cdot 10^{-2} \text{ mm Hg}$  and then filled with neon up to 1.5 atm. Boundary effects were avoided by extending the bottom and top plates outside the chamber like wings. Particle trajectories with a  $40^\circ$  inclination were found to be well reproduced. The same is true for particles entering the chamber through the side walls and for showers.

Card 1/2

A two-electrode spark discharge ...

S/056/63/044/002/063/065  
B185/B102

The chamber electrodes are connected to a coincidence circuit with a 0.25-0.3  $\mu$ sec delay that starts a discharger generating pulses of  $10^{-7}$  sec duration and 60-80 kv height. The magnetic field strength was  $5 \cdot 10^3$  gauss and the resulting trajectory curvature coincided with the streamer channel without visible distortion. For muons the track curvature agreed with the expected value. There are 3 figures.

ASSOCIATION: Fizicheskiy institut GKAE, Yerevan (Physics Institute GKAE, Yerevan)

PRESENTED: December 30, 1962

Card 2/2

ALIKHANYAN, A.I.; ASATIANI, T.L.; MATEVOSYAN, E.M.; NAZARYAN, A.A.;  
SHARKHATUNYAN, R.O.

Observation of fast particle tracks in a two-electrode spark  
chamber in a magnetic field. Zhur. eksp. i teor. fiz. 45  
no.5:1684-1687 N '63. (MIRA 17:1).

1. Fizicheskii institut Gosudarstvennogo komiteta po ispol'-  
zovaniyu atomnoy energii SSSR.

L 06586-67 EWT(1)

ACC NR: AP60290Q4

SOURCE CODE: UR/0431/66/001/002/0127/0130

AUTHOR: Asatiani, T. L.; Gazaryan, K. A.; Zhmyrov, V. N.; Ivanov, V. A.; Matevosyan, E. M.; Nazaryan, A. A.; Filozov, A. F.; Sharkhatunyan, R. O.

ORG: Institute of Physics GKAE (Institut fiziki GKAE)

TITLE: On the possibility for measuring ionization of charged particles in a streamer chamber

SOURCE: AN ArmSSR. Izvestiya, Fizika, v. 1, no. 2, 1966, 127-130

TOPIC TAGS: ionization chamber, particle track, charged particle, neon, proton beam

ABSTRACT: Data are given from experiments conducted to determine the possibility of measuring the specific ionization of charged particles in a streamer chamber. The LYaP synchrocyclotron at OIYaI was used for passing protons with energies of 660, 200, 100 and 50 Mev through a streamer chamber measuring 50×35×15 cm filled with pure neon to a pressure of 1 atm. The results show  $1.8 \pm 0.4$  luminescent centers per cm of the proton track with a root-mean-square deviation of 0.29 mm from the approximating straight line. Microphotometric analysis of the films shows that the proposed method may be used for measuring the ionization of charged particles. In conclusion the authors thank Corresponding member AN SSSR A. I. Alikhanyan and Doctor of physical and mathematical sciences A. A. Tyapkin for cooperation and interest in the work. The authors are especially grateful to Candidate of physical and mathematical sciences

Card 1/2

L 06586-67

ACC NR: AP6029004

A. F. Pisarev for assistance in carrying out the experiment and for useful discussions and also to V. N. Prokhorov for direct assistance with the measurements and to Yu. A. Zanevskiy for cooperation in the work. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 05Sep65/ ORIG REF: 002/ OTH REF: 002

Card 2/2

GABRIELYAN, N. S.R.; ISRAELYAN, A.I.; MATEVOSYAN, P.S.

Biogenic formations of the carbonate cementing surface of the  
volcanic highland in the Armenian S.S.R. Izv. Akad. Nauk. SSSR.  
Ser. Biol. 18 no. 7:45-55 61 1965. (Sov. Sci. Rev.)

1. Institut Mikrobiologii Akad. Nauk i Yerevanskoy Gosudarstvennoy  
universiteti.



SOV/124-57-8 9687  
Translation from: Referativnyy zhurnal. Mekhanika. 1957, Nr 8, p 151 (USSR)

AUTHOR: Matevosyan, K. A.

TITLE: Determination of the Rigidity of Metal-cutting Lathes (Opredeleniye zhestkosti metallovezhushchikh stankov)

PERIODICAL: Tr. Stud. nauchno-tekhn. o-va. MVTU im. Baumana. 1957, Vol 3  
pp 35-40

ABSTRACT: Bibliographic entry

Card 1/1

BADAYAN, Kh.P.; MARUTYAN, N.A.; ~~MATEVOSYAN, K.A.~~; SARINYAN, M.G.

Angular correlation in  $\pi^+ \rightarrow \mu^+ \rightarrow e^+$  decay observ-  
able in a nuclear emulsion. Dokl. AN Arm. SSR 26 no.3:145-148  
'58. (MIRA 12:10)

1. Fizicheskiy institut AN Armyanskoy SSR. Predstavleno A.I.  
Alikhanyanom.

(Mesons--Decay)

MATEVOSYAN A 17

AUTHORS: Babayan, Kh. P., Marutyan, N. A., Matevosyan, K. A., Rostomyan, M. G. 56-1-36/56

TITLE: Two Cases of the Disintegration of a Hyperfragment  
(Dva sluchaya raspada giperfragmenta)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958,  
Vol. 34, Nr 1, pp. 231-232 (USSR)

ABSTRACT: In a pile of Ilford (Il'ford)-G-5 - emulsion-layers irradiated in the stratosphere the authors discovered the disintegration of a heavy hyperfragment with the flying off of an energy-rich proton; this hyperfragment was interpreted as  $F_{\Lambda}$  or  $N_{\Lambda}$ . Furthermore a mesonic disintegration of a hyperfragment was discovered in this pile. Case I: A multiple-charged hyperfragment ( $R = 127 \mu$ ) flies out of a star  $15 + 2n$ . The absence of  $\delta$ -electrons at the end of the range and the narrowing of the trace show that the hyperfragment came to a standstill. From the length of the narrowing the charge was estimated to  $Z = 8 \pm 2$ . The hyperfragment disintegrates at the end of its range into three charged particles. The behavior of these three particles is also given here. The following disintegration schemata of the

Card 1/2

Two Cases of the Disintegration of a Hyperfragment

56-1-36/56

hyperfragment with positive bond energy of the  $\Lambda^0$  particles are possible:  $\Lambda F^{18,19,20} \rightarrow d(t) + p(d,t) + p + C$ ,  $\Lambda Ne^{20,21} \rightarrow p(d,t) + p(l,t, He^3, He^4) + p + N(C)$ . In the disintegration with participation of a neutral particle the possibility of a lighter hyperfragment is not out of the question. Case II: A light hyperfragment which disintegrates after 276  $\mu$  into 2 particles flies off a star of the type 21 + 8p. The scattering of the hyperfragment indicates a disintegration in the position of rest and the charge was estimated with  $Z = 2$  to 3. The trace is produced by a pion with the energy  $(32 \pm 5,0)$  MeV. The kinematic analysis of the case furnishes the schemata  $He_{\Lambda}^5 \rightarrow p + \pi^- + He^4 + Q_1$ ;  $Li_{\Lambda}^{7,8} \rightarrow p + \pi^- + Li^{6,7} + Q_2$ , where  $Q_1=Q_2=(39,0 \pm 5,0)$  MeV applies. There are 2 figures and 6 references.

ASSOCIATION: Physical Institute AN Armenian SSR (Fizicheskiy institut Akademii nauk Armyanskoy SSR)

SUBMITTED: September 19, 1957

AVAILABLE: Library of Congress  
Card 2/2

7(5), 21(0)

AUTHORS:

Babayan, Kh. P., Marutyan, N. A.,  
Matevosyan, K. A., Sarinyan, M. G.

SOV/56-30-3-1/

TITLE:

The Energy Dependence of the Angular Correlation of  
Positrons Originating From  $\pi \rightarrow \mu \rightarrow e$  Decay (Energeticheskaya  
zavisimost' uglovoy korrelyatsii pozitronov iz  $\pi \rightarrow \mu \rightarrow e$ -  
raspada)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1985 ,  
Vol 30, Nr 3, pp 561 - 564 (USSR)

ABSTRACT:

In the present paper the authors deal mainly with  
investigations of  $\pi \rightarrow \mu \rightarrow e$  events in nuclear  
emulsions (investigations were carried out at Yerevan,  
the results will be published in detail in DAN ArmSSR  
(Ref 9) in a paper which is already  
being printed); the authors compare the results obtained  
with those obtained by numerous other authors. (Lee  
and Jang (Li, Yang), (Ref 1), Landau (Ref 2), Vaysenberg,  
Smirnitskiy (Refs 7,8) and others). The authors of  
the present paper investigated 405 of such decays; they  
found that the experimental energy dependence of the

Card 1/4

The Energy Dependence of the Angular Correlation of  
Positrons Originating From  $\pi \rightarrow \mu \rightarrow e$  Decay

SOV, 1977, 1-1-1

backward-forward ratio for the emitted positrons agrees with the predictions of the two-component neutrino theory. The non-conservation of parity in the  $\pi \rightarrow \mu$  - decay leads to a polarization of the  $\mu$  spin inversely to the direction of motion. In the following decay of the myon the positrons have an energy-dependent angular symmetry, which, according to the two-component neutrino theory, has the form:  $dN = 2N_0^2 [(3-2\xi) + \lambda \cos \theta (2\xi - 1)] d\xi d(\cos \theta)$  ( $\xi$  = ratio between the energy of the positron and the maximal possible energy,  $\theta$  = angle between the directions of flight of the myon and positron,  $\lambda$  = constant,  $-1 \leq \lambda \leq +1$ ). The authors investigated a total of 2160 decay events (Ref 9) and found an asymmetry coefficient  $A = -(0,135 \pm 0,043)$ . In 40 cases selected according to certain points of view the following distribution of positron ranges was found:  
Length of traces: 1-2 2-3 3-4 4-5 5-6 6-7 7-8 >8 mm  
Number of traces: 194 91 54 26 18 10 8 4  
In a table the authors show the A-values determined by various other authors at 9 different places (Ref 10).

Card 2/4

The Energy Dependence of the Angular Correlation of  
Positrons Originating From  $\pi \rightarrow \mu \rightarrow e$  Decay

SOV/58-35-3-1/1

(More than 15 000 observations partly with cosmic rays and partly with accelerators). In the 405 cases selected by the authors  $A$  was between  $-(0,153 \pm 0,086)$  at  $\epsilon = 0,1$  and  $-(0,400 \pm 0,220)$  at  $\epsilon = 1,0$ . In conclusion the authors thank A.I.Alikhanyan for the interest he displayed, I.I. Gol'dman for his advice, and L.N.Tatevosyan for assisting in carrying out measurements. There are 3 figures, 1 table, and 17 references, 4 of which are Soviet.

ASSOCIATION: Fizicheskiy institut Akademii nauk Armyanskoy SSR (Physics Institute, AS Armyanskaya SSR)

SUBMITTED: February 13, 1958 (initially) and June 6, 1958 (after revision)

Card 3/4

S/022/60/013/01/09/010

C 111/ C 23

AUTHORS: Babayan, Kh. P., Marutyan, N. A., Matévosyan, K. A., Sarinyan,  
M. G.,

TITLE: Investigation of the Hyperfragments in the Nuclear Emulsion /9

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR. Seriya fiziko-  
matematicheskikh nauk, 1960, Vol. 13, No. 1, pp. 165-168

TEXT: Report on the systematic investigation of a nuclear emulsion  
Ilford G - 5 of 600 ~~4~~ layers which was cosmically irradiated in the  
height of 27 km in Italy in 1955. The material was placed at disposal  
to the authors by Professor Pawell. The decay of 6 hyperfragments was  
stated. In (Ref.3) the authors already reported on two cases. The re-  
presentation of the other four cases is now published. The values ob-  
tained for  $B_A$  coincide in the frame of statistical errors with the  
known data. ✓B

There are 3 references: 1 Soviet, 1 English and 1 Italian.

ASSOCIATION: Fizicheskiy institut AN Armyanskoy SSR (Physical Institute  
AS Armyanskaya SSR)

SUBMITTED: August 20, 1958

Card 1/1



04398

S/056/60/1000 48  
B004/B070

24.6900

AUTHORS: Marutyan, N. A., Matevosyan, K. A., Toshyan, R. T.

TITLE: Investigation of the Interaction<sup>9</sup> of a  $5.10^{12}$ -ev Nucleon  
With a Photoemulsion Nucleus

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,  
Vol. 39, No. 4(10), pp. 993-996

TEXT: On a systematic examination of an emulsion pile (Ilford G-5, 600 $\mu$ ) irradiated for 8 hours at a height of 27 - 30 km, the authors found one 6 + 31p interaction. The event is interpreted as an interaction of a nucleon with a nucleus of the emulsion, and its energy spectrum is studied. The energy of the primary particle is then found to be equal to  $(4.7 \pm 1.0) \cdot 10^{12}$  ev. The measurements were made with an MBN-8M (MBI-8M) microscope. The angles of all shower particles related to the primary particle as well as their energies were measured (Table). Fig. 1 shows the angular distribution of the secondary particles, and Fig. 2 the transverse momentum distribution. The mean length of the

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84398

Investigation of the Interaction of a  
5.10<sup>12</sup>-ev Nucleon With a Photoemulsion Nucleus

S/056/60/039/001/016/048  
B004/B070

nuclear interaction was of the order of 30 cm, the mean transverse momentum was (0.17±0.02)Bev/c. The best agreement between the hydrodynamic theory of L. D. Landau and the experimental data is obtained for  $kT = (1/2)\mu_{\pi}c^2$ . The primary particle gave 10% of its energy for the formation of the secondary particles. The authors mention a paper by G. A. Milekhin and I. L. Rozental' (Ref. 6). There are 2 figures, 1 table, and 7 references: 4 Soviet, 1 British, and 2 Italian.

ASSOCIATION: Fizicheskiy institut Akademii nauk Armyanskoy SSR  
(Institute of Physics of the Academy of Sciences,  
Armyanskaya SSR)

SUBMITTED: May 27, 1960

Card 2/2

AKOPYAN, G.S.; BOLOTOV, V.N.; DAYON, M.I.; DEVISIEV, M.I.; KNYAZEV, V.M.;  
MARIKIAN, G.A.; MATEVOSIAN, K.A.; SHMELEVA, A.P.

Ionizing particles accompanying nucleons with energies of  
 $E_0 \approx 170$  Bev. at an altitude of 2000 meters. Izv. AN SSSR.  
Ser.fiz. 29 no.10:1953-1955 0 '65.

(MIRA 18:10)

ACC NR: AP7003200

SOURCE CODE: UR/0056/66/051/006/1613/1616

AUTHOR: Marikyan, G. A.; Matevosyan, K. A.

ORG: Yerevan Physics Institute (Yerevanskiy fizicheskiy institut)

TITLE: Absorption range of nuclear active cosmic-ray particles

SOURCE: Zh eksper i teor fiz, v. 51, no. 6, 1966, 1613-1616

TOPIC TAGS: cosmic ray measurement, cosmic ray particle, strong nuclear interaction, cosmic ray telescope, particle cross section

ABSTRACT: To check on the changes in the energy dependence of the nucleon-nucleus inelastic interaction cross section at high energies, the authors constructed a cosmic-ray measurement array at altitude 2000 m above sea level (in Nor-Amberd), consisting of an ionization calorimeter, two spark chambers, and a hodoscope of Geiger-Muller counters. This was used to measure the absorption range of the nuclear-active component of cosmic rays with energy up to  $2 \times 10^{12}$  ev in aluminum and in lead. Tests results accumulated after 4900 hours of operation showed the experimental absorption range to be higher than expected theoretically, and this discrepancy is attributed to the possible simultaneous incidence of several high-energy nuclear-active particles on the array. If the cross section for the nuclear active interaction is represented in the form  $\sigma_{NA} = \text{const.} \cdot A^a$ , where  $A$  is the atomic weight of the absorbing substance, then

Card 1/2

ACC NR: AP7003200

the results show that  $\alpha$  remains constant at  $2/3$  up to  $10^{12}$  ev energy. To draw more definite conclusions concerning the dependence of the cross section on the interacting-particle energy it is necessary to determine, besides the absorption range at various energies, also the average number of high-energy nuclear-active particles simultaneously incident on the array. The authors thank A. I. Alikhanyan for continuing interest in the work. Orig. art. has: 2 figures, 1 formula, and 1 table.

03/  
SUB CODE: 20/ SUBM DATE: 17May66/ ORIG REF: 005

Card 2/2

ALEKSEYEVSKIY, V., inzh.; CHATINYAN, Yu., inzh.; MATEVOSYAN, M., inzh.

Protected insulated input for high-voltage units. Prom.Arm. 6 no.10:  
63-66 0 '63. (MIRA 17:1)

1. Armyanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta  
elektromekhaniki.

S/110/60/000/006/004/007  
E194/E455

AUTHORS: Galstyan, L.K., Engineer and Matevosyan, M.A., Engineer

TITLE: The Use of Glass-Eskapon Varnished Cloth for the Slot  
Insulation of Electrical Machines

PERIODICAL: Vestnik elektropromyshlennosti, 1960, No.6, pp.38-40

TEXT: Class B slot insulation for alternators up to 500 V is made of varnished glass-fibre cloth grades ЛСТЗ (LSTZ) and ЛСТЧ (LSTCh) impregnated with a varnish based on expensive vegetable oils which are in short supply. If these varnishes could be replaced by synthetic varnish the varnished glass cloth would be much cheaper. Eskapon<sup>12</sup> is a thermal polymerisation product of synthetic sodium-butadiene rubber without vulcanising reagents. The "Elektroizolit" Works produces varnished glass cloth grade ЛСЭ-1 (LSE-1) based on Eskapon varnish. Tests were made to study the possibility of using this Eskapon material in place of the regular grades. The dielectric properties of the material were determined immediately after receipt and at a temperature of 20°C; the results are given, they are satisfactory  
Card 1/3

S/110/60/000/006/004/007  
E194/E455

**The Use of Glass-Eskapon Varnished Cloth for the Slot Insulation of Electrical Machines**

and as good as those of the regular material. However, thermal ageing tests showed that the mechanical and electrical properties were much less satisfactory. Thus in ageing tests at 180°C, the electric strength requirements of standard GOST 188-54<sup>15</sup> (GOST 188-54) were maintained for only 200 to 340 hours and at 150°C for 630 hours. In respect of breakdown voltage as a function of ageing time the new material is much less satisfactory than the old. It was also found that during the ageing process the varnished cloth grade LSE-1 loses elasticity and, after 72 hours at a temperature of 150°C or 24 hours at 180°C, it breaks on bending. Further ageing causes cracks to appear and in some cases the Eskapon breaks away from the glass-fibre cloth. It should be noted, however, that the changes in the mechanical strength of the Eskapon varnish film do not affect the strength of the glass-fibre cloth itself. Temperature and moisture cycling tests were made on a 144 hour cycle consisting of 72 hours in an atmosphere of 98% relative humidity and 72 hours at a temperature of 150°C. After  
Card 2/3



S/110/60/000/006/004/007  
E194/E455

**The Use of Glass-Eskapon Varnished Cloth for the Slot Insulation  
of Electrical Machines**

four such cycles, the properties such as breakdown voltage and power factor of the Eskapon material were much worse than those of the old material. Eskapon was not resistant to benzene or benzole. As a result of the tests the manufacturer of Eskapon-based varnished cloth grade LSE-1 has applied new technical conditions, including transfer to class A. The conditions include the requirement that the material should not be stored under factory conditions for more than ten days, which with the present transport and delivery conditions cannot be fulfilled. There is an editorial note that it cannot yet be finally concluded that Eskapon-based varnished glass-fibre cloth is unsuitable for, in practice, it is commonly used in conjunction with mica. A request is made for further information about the use of this material. There are 4 figures. ✓

SUBMITTED: December 25, 1959

Card 3/3

L 05855-67 EWP(3)/ENT(m)/T IJP(3) RM/JXT.CZ

ACC NR: AR6010514

SOURCE CODE: UR/0196/65/000/010/B012/B012

AUTHOR: Matevosyan, M. A.

TITLE: Investigation of the corona resistance of film insulating materials

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 10B63

REF SOURCE: Sb. Probov dielektrikov i poluprovodnikov. M.-L., Energiya, 1964, 311-315

TOPIC TAGS: insulating material, surface film, dielectric corona

ABSTRACT: Comparative tests for corona resistance are given for films made of polyethylene (32  $\mu$ ), polyethylene terephthalate (khostofan 11 and 45  $\mu$  and melineks 6  $\mu$ ), polystyrene (50  $\mu$ ) and triacetate cellulose (65  $\mu$ ). The tests were conducted by three methods: with the use of the Czech, French, and British systems of electrodes (a, b, and c, respectively, in the figure) (in which 1) are the electrodes, 2) the specimen, 3) an air gap, and 4) glass plates). The results of the tests testify that for evaluation of the corona resistance it is desirable to use electrodes with a closed chamber, providing for the effect of the corona products on the material being tested. From this standpoint, the use of British electrodes is undesirable, especially in testing materials that are sensitive to the chemical effect of the corona products. The test results by the Czech and French methods (see table) agree satisfactorily from the standpoint

Card 1/2

UDC: 621.315.616.96.015.532

L 05855-67

ACC NR: AR6010514

24

Dielectrics 15	Polyethylene, 32 $\mu$		Khostofan, 45 $\mu$		Polystyrene, 50 $\mu$		Triacetate cellulose, 65 $\mu$	
	Initial	After Tests*	Initial	After Tests*	Initial	After Tests*	Initial	After Tests*
tg $\delta$	$2 \cdot 10^{-3}$	$2 \cdot 10^{-2}$	$7 \cdot 10^{-3}$	$3 \cdot 10^{-2}$	$8 \cdot 10^{-3}$	$5 \cdot 10^{-2}$	$10^{-2}$	$3 \cdot 10^{-1}$
Ebreak, kv/mm	180	55	200	155	150	45	123	24
$\delta$ diff, kg/mm <sup>2</sup>	8.5	2.3	16.5	7.5	8.1	0.5	7.2	0

\*15 hr when U = 24 kv.

that all 4 materials investigated are in one sequence with respect to corona resistance. Polyethylene terephthalate has the highest corona resistance of the materials investigated, and triacetate cellulose the lowest. [Translation of abstract] 3 illustrations, 2 tables, and bibliography of 5 titles. [Leningrad Polytechnical Institute im. M. I. Kalinin (Leningradskiy politekhnich, in-t)] A. Petrashko

SUB CODE: 07/11

Cord 2/2

kh

RENNE, V.T., doktor tekhn. nauk, prof.; MATEVOSYAN, M.A., inzh.

Accelerated tests of the corona resistance of insulating films.  
Izv. vys. ucheb. zav.; energ. 7 no.12:108-111 D '64.

(MIRA 18:2

1. Leningradskiy politekhnicheskoy institut imeni M.I. Kalinina.  
Predstavlena kafedroy elektricheskoy izolyatsii, kabeley i kon-  
densatorov.

MATEVOSYAN, P.A.

Successfully carrying out the directives of the 20th Congress of the  
Communist Party of the Soviet Union. Metallurg no.4:1-3 Ap '56.  
(MIRA 9:9)

1.Direktor zavoda "Krasnyy Oktyabr'".  
(Metallurgical plants)

S/133/61/000/005/004/009  
A054/A133

**AUTHORS:** Osipov, V.P., Engineer; Yefimov, V.A., Candidate of Technical Sciences; Matevosyan, P.A., Engineer; Danilin, V.I.; Engineer; Lapshova, M.P., Engineer; Selivanov, V.M., Engineer; Lisov, I.V., Engineer

**TITLE:** Pouring of high-alloy steels

**PERIODICAL:** Stal', no. 5, 1961, 415 - 418

**TEXT:** When stainless steel is poured, the surface layers of the ingot are deteriorated by folds, blisters and pock marks, which are mainly the result of oxides and gases in the metal. To avoid such defects, tests were carried out with pouring low-melting synthetic slags on the metal surface in the ingot mold. The hot-liquid slag decreases heat losses through radiation and checks the oxidation of the metal. The main purpose of the tests was to determine the effect of various factors on the formation of defects and the most suitable composition of synthetic slags to be used in this process. The slags were melted in a 20-ton single-phase arc furnace with conductive graphite bottom. The low-melting constituents (fluorite, cryolithe) were charged at first, on the bottom, next the

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# Pouring of high-alloy steels

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other materials. The melting of a 50-kg batch of synthetic slag took 1 - 1 1/2 h. The slag was poured into a ladle and from this into the mold. When the metal level in the mold had risen to about 150 - 200 mm, about 15 - 16 kg slag was poured on its surface. In the tests X23H18 (Kh23N18) and 1X18H9T (1Kh18N9T) steel was bottom-cast into 4.1-ton ingots. Simultaneously with pouring into uncoated molds with synthetic slag, metal was also poured into lacquer-coated molds for comparison. Four types of slags were used with the following composition:

group	CaF <sub>2</sub>	Na <sub>3</sub> AlF <sub>6</sub>	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	MgO	MnO
I	35-40	—	35-40	10-15	10-15	—	—
II	33,3	33,3	—	—	33,3	—	—
III	—	—	50	—	20	15	15
IV	—	75	—	—	25	—	—

The best results were obtained with Group-I slags which are light grey-bluish when solid; when liquid, they humidify the metal very thoroughly. During smelting Kh18N9T steel, the slag composition changed as follows (numerator: composition before smelting; denominator: after smelting):

SiO <sub>2</sub>	CaO	MnO	TiO <sub>2</sub>	Cr <sub>2</sub> O <sub>3</sub>	FeO	Al <sub>2</sub> O <sub>3</sub>	P	Na
35,4	37,12	0,31	0,35	0,48	0,11	11,42	14,30	2,12
32,72	35,99	1,50	6,17	1,74	0,97	13,16	13,40	1,00

It can be seen that synthetic slag adsorbs chrome and titanium oxides, which is promoted by the presence of CaO, moreover by CaF<sub>2</sub>, Na<sub>3</sub>AlF<sub>6</sub> (cryolithe) and Na<sub>2</sub>SiO<sub>3</sub>

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Pouring of high-alloy steels

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soluble glass). The adsorption of chrome and titanium oxides takes place also very rapidly. When 1Kh18N9T steel is poured into the mold to half its capacity, the titanium oxide content of slag increased from 0.6 to 2.5%, the chrome oxide content from 0.03 to 0.8%, while, when pouring was finished, the content of the above oxides increased to 3 and 1%, respectively. No folds were observed in the ingots which were poured under Group-I slags. The ingot surface was covered with a thin slag layer (like "enamel"), the thickness of which between ingot and mold-wall on the edges was 0.3 - 0.5 mm, on the angles 3 mm. The test ingots had a flawless, smooth surface, while in the check-ingots the usual folds in the upper part and blisters in the lower part were found. Due to the synthetic slag layer, the intensity of heat removal from the ingot surface decreased 1.4 times; the shrinkage stresses in the ingot case also became lower. The intensity of shrinkage decreased and, moreover, the liquid slag flowed into the pores of the mold, hereby eliminating the delay of shrinkage and promoting the contraction of the ingot along the mold wall. The mechanical properties of synthetic slag-treated steels are partly equal to those of the conventional steels (strength limit and relative elongation), in some respects they are even better. In the test specimens of synthetic slag-treated 1Kh18N9T and X18H12M2T (Kh18N12M2T) steels no intercrystalline corrosion could be observed during the tests. There are 2 figures,

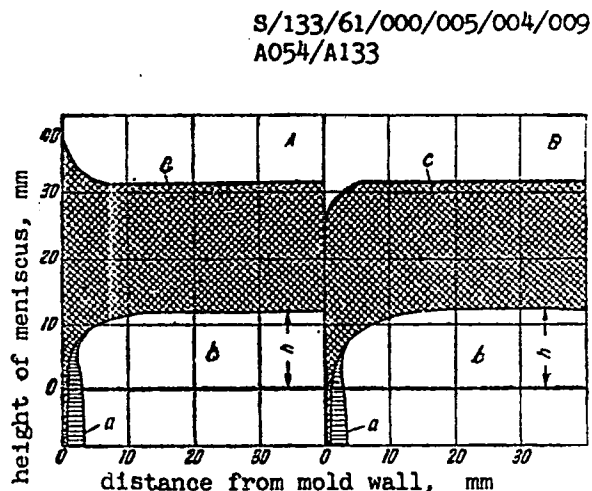
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# Pouring of high-alloy steels

2 tables and 3 Soviet-bloc references.

Figure 2: Effect of coating on the forming of the external ingot surface when pouring under synthetic slag. A - without coating; B - the mold is graphite-coated (a - solidifying steel; 2 - liquid steel; 3 - liquid slag).



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MATEVOSYAN, P. A.

PHASE I BOOK EXPLOITATION

SOV/6329

Oyke, Grigoriy Naumovich, Paruir Apetnekovich Matevosyan, Il'ya Isifovich Ansheles, Vladimir Ivanovich Danilin, Gennadiy Anisimovich Sokolov, Ivan Aleksandrovich Baranov, and Viktor Michaylovich Selivanov.

Novaya tekhnologiya vyplavki sharikopodshipnikovoy stali (New Technology of Melting Ball-Bearing Steel). Moskva, Metallurgizdat, 1962. 124 p. Errata slip inserted. 2250 copies printed.

Ed. of Publishing House: V. I. Ptitsyna; Tech. Ed.: P. G. Islent'yeva.

PURPOSE: This book is intended for metallurgical engineers of steel-melting shops and central plant laboratories. It may also be useful to students at tekhnikums and metallurgical schools of institutions of higher learning.

COVERAGE: The book reviews the new technology of making ball-bearing steel which was introduced at the "Krasnyy Oktyabr'" Metallurgical Plant in Volgograd. Vacuum degassing of metal is discussed as

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New Technology (Cont.)

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an intermediate technological stage of the melting process. A brief outline of the conventional method of melting ball-bearing steel is presented, along with advantages offered by the new technology, which ensures an improved steel quality. Designs of vacuum-units of the Plant are described. The book also reviews experiments in making silicon-free ball-bearing steel by double vacuum degassing. The quality of steel produced for several years by the new melting technology is discussed in detail. No personalities are mentioned. There are 61 references: 56 Soviet, 3 German, and 2 English.

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Requirements for ball-bearing steel	7
Basic principles of the classical technology of melting ball-bearing steel	10

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 S/0133/63/000/005/0422/0425 76  
 61  
 ACCESSION NR: AP3001467  
 AUTHOR: Yavoyakiy, V. I. (Dr. of technical sciences); Matvosyan, P. A. (Engineer)  
 Kryakovskiy, Yu. V. (Candidate of technical sciences); Tyurin, Ye. I. (Candidate  
 of technical sciences); Vishkarev, A. F. (Candidate of technical sciences);  
 Permyakov, L. N. (Engineer); Antipov, K. I. (Engineer)

TITLE: Use of rare-earth elements in smelting of structural alloy steel and of  
 stainless steel 27

SOURCE: Stal', no. 5, 1963, 422-425

TOPIC TAGS: Ce, La, Nd, Pr, Ni, Armco-iron, steel Kh23N18, steel KhGSA, steel  
 1Kh18N9T, steel 12Kh1MF, steel 40Kh, flake formation, steel 37KhS, steel 36G2S,  
 steel 30KhSA

ABSTRACT: The influence of rare-earth elements on properties of different kinds  
 of steel was investigated at Moskovskiy institut stali i splavov (Moscow  
 Institute of Steel and Alloys). Ce, La, Nd, and Pr were used separately in  
 the form of an alloy (45-55% Ce, up to 28% La, and up to 15% Nd). Laboratory  
 tests indicated that Ce and La lowered the surface tension of molten steel. 14

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